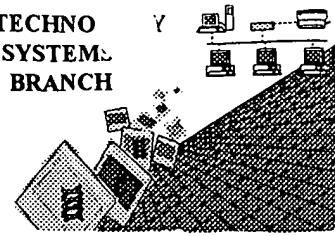


BIOTECHNO
SYSTEMS
BRANCH



SV

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/937,187
Source: PCP/09
Date Processed by STIC: 2/6/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/937,187

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 Wrapped Nucleic
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.

10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



PCT/09

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/937,187

DATE: 02/06/2002
TIME: 18:41:31

Input Set : A:\Neb-164.app
Output Set: N:\CRF3\02062002\I937187.raw

pr 1-5
Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: SANDMAN, KAREN E.
 4 NOREN, CHRISTOPHER J.
 5 NEW ENGLAND BIOLABS, INC.
 7 <120> TITLE OF INVENTION: SURFACE DISPLAY OF SELENOCYSTEINE-CONTAINING PEPTIDES
 9 <130> FILE REFERENCE: NEB-164-PCT
 11 <140> CURRENT APPLICATION NUMBER: US/09/937,187
 12 <141> CURRENT FILING DATE: 2002-01-08
 14 <150> PRIOR APPLICATION NUMBER: 60/134,286
 15 <151> PRIOR FILING DATE: 1999-05-14
 17 <160> NUMBER OF SEQ ID NOS: 42
 19 <170> SOFTWARE: PatentIn Ver. 2.0
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 38
 23 <212> TYPE: RNA
 24 <213> ORGANISM: Synthetic *see item 10 on Error Summary Sheet*
 26 <220> FEATURE:
 27 <223> OTHER INFORMATION: N = A, G, C, or U
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: K = G and U
 32 <400> SEQUENCE: 1
 WOK> 33 nnknnknnkn nkugannknn knnkucggcc gaaacaug 38
 35 <210> SEQ ID NO: 2
 36 <211> LENGTH: 24
 37 <212> TYPE: DNA
 38 <213> ORGANISM: Synthetic *item 10*
 40 <400> SEQUENCE: 2
 41 tcgtcttttc cttgaaaatgc gcct 24
 43 <210> SEQ ID NO: 3
 44 <211> LENGTH: 24
 45 <212> TYPE: DNA
 46 <213> ORGANISM: Synthetic
 48 <400> SEQUENCE: 3
 49 aagtgtacgc tttgatctat gctg 24
 51 <210> SEQ ID NO: 4
 52 <211> LENGTH: 24
 53 <212> TYPE: DNA
 54 <213> ORGANISM: Synthetic
 56 <400> SEQUENCE: 4
 57 ttgttttgc cttgaaaatgt tctt 24
 59 <210> SEQ ID NO: 5
 60 <211> LENGTH: 24
 61 <212> TYPE: DNA
 62 <213> ORGANISM: Synthetic

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/937,187

DATE: 02/06/2002
TIME: 18:41:31

Input Set : A:\Neb-164.app
Output Set: N:\CRF3\02062002\I937187.raw

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66 <210> SEQ ID NO: 6
67 <211> LENGTH: 24
68 <212> TYPE: DNA
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72 <210> SEQ ID NO: 7
73 <211> LENGTH: 24
74 <212> TYPE: DNA
75 <213> ORGANISM: Synthetic
76 <400> SEQUENCE: 7
77 aaggctctgt gttgacagga ttcg
78 <210> SEQ ID NO: 8
79 <211> LENGTH: 24
80 <212> TYPE: DNA
81 <213> ORGANISM: Synthetic
82 <400> SEQUENCE: 8
83 cttcttccgt gttgagctca gccg
84 <210> SEQ ID NO: 9
85 <211> LENGTH: 24
86 <212> TYPE: DNA
87 <213> ORGANISM: Synthetic
88 <400> SEQUENCE: 9
89 catcatccga cttagactaa gcag
90 <210> SEQ ID NO: 10
91 <211> LENGTH: 24
92 <212> TYPE: DNA
93 <213> ORGANISM: Synthetic
94 <400> SEQUENCE: 10
95 atgcctcccta cgtaatggc tacg
96 <210> SEQ ID NO: 11
97 <211> LENGTH: 24
98 <212> TYPE: DNA
99 <213> ORGANISM: Synthetic
100 <400> SEQUENCE: 11
101 atgcctcccta cgtaatggc tacg
102 <210> SEQ ID NO: 12
103 <211> LENGTH: 24
104 <212> TYPE: DNA
105 <213> ORGANISM: Synthetic
106 <400> SEQUENCE: 12
107 aattggtttt cttagactgac tacg
108 <210> SEQ ID NO: 13
109 <211> LENGTH: 24
110 <212> TYPE: DNA
111 <213> ORGANISM: Synthetic
112 <400> SEQUENCE: 13
113 aattggtttt cttagactgac tacg
114 <210> SEQ ID NO: 14
115 <211> LENGTH: 24
116 <212> TYPE: DNA
117 <213> ORGANISM: Synthetic
118 <400> SEQUENCE: 14
119 ctgcatccga cgtgagctcg gcct
120 <210> SEQ ID NO: 15
121 <211> LENGTH: 24
122 <212> TYPE: DNA
123 <213> ORGANISM: Synthetic
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125 atgcctcccta cgtaatggc tacg
126 <210> SEQ ID NO: 16
127 <211> LENGTH: 24
128 <212> TYPE: DNA
129 <213> ORGANISM: Synthetic
130 <400> SEQUENCE: 16

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/937,187

DATE: 02/06/2002
TIME: 18:41:31

Input Set : A:\Neb-164.app
Output Set: N:\CRF3\02062002\I937187.raw

129 gatagggggc cttgagcgaa gatt	24
131 <210> SEQ ID NO: 14	
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133 <212> TYPE: DNA	
134 <213> ORGANISM: Synthetic	
136 <400> SEQUENCE: 14	
137 gcgtcttgc cttgaaggac gagt	24
139 <210> SEQ ID NO: 15	
140 <211> LENGTH: 24	
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144 <400> SEQUENCE: 15	
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147 <210> SEQ ID NO: 16	
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155 <210> SEQ ID NO: 17	
156 <211> LENGTH: 24	
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163 <210> SEQ ID NO: 18	
164 <211> LENGTH: 24	
165 <212> TYPE: DNA	
166 <213> ORGANISM: Synthetic	
168 <400> SEQUENCE: 18	
169 aagttggctc gttgatcggc gtcg	24
171 <210> SEQ ID NO: 19	
172 <211> LENGTH: 24	
173 <212> TYPE: DNA	
174 <213> ORGANISM: Synthetic	
176 <400> SEQUENCE: 19	
177 aatggggcgc agtgatcgag gcat	24
179 <210> SEQ ID NO: 20	
180 <211> LENGTH: 24	
181 <212> TYPE: DNA	
182 <213> ORGANISM: Synthetic	
184 <400> SEQUENCE: 20	
185 gcgagtccta cttgatttaa gccg	24
187 <210> SEQ ID NO: 21	
188 <211> LENGTH: 24	
189 <212> TYPE: DNA	
190 <213> ORGANISM: Synthetic	
192 <400> SEQUENCE: 21	
193 tgtgctcatc cgtgatctac tcgt	24

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/937,187

DATE: 02/06/2002
TIME: 18:41:31

Input Set : A:\Neb-164.app
Output Set: N:\CRF3\02062002\I937187.raw

195 <210> SEQ ID NO: 22
 196 <211> LENGTH: 24
 197 <212> TYPE: DNA
 198 <213> ORGANISM: Synthetic
 200 <400> SEQUENCE: 22
 201 cagtcgacgc ggtatggaa tgat 24
 203 <210> SEQ ID NO: 23
 204 <211> LENGTH: 24
 205 <212> TYPE: DNA
 206 <213> ORGANISM: Synthetic
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 209 atttgtggagt cgtgattgaa tccg 24
 211 <210> SEQ ID NO: 24
 212 <211> LENGTH: 24
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 214 <213> ORGANISM: Synthetic
 216 <400> SEQUENCE: 24
 217 acgcagcgta tgtgattgcc gccc 24
 219 <210> SEQ ID NO: 25
 220 <211> LENGTH: 24
 221 <212> TYPE: DNA
 222 <213> ORGANISM: Synthetic
 224 <400> SEQUENCE: 25
 225 gtgcagtata cgtgattgcc gaag 24
 227 <210> SEQ ID NO: 26
 228 <211> LENGTH: 24
 229 <212> TYPE: DNA
 230 <213> ORGANISM: Synthetic
 232 <400> SEQUENCE: 26
 233 gctgggcagt cgtgatcgac tgat 24
 235 <210> SEQ ID NO: 27
 236 <211> LENGTH: 24
 237 <212> TYPE: DNA
 238 <213> ORGANISM: Synthetic
 240 <400> SEQUENCE: 27
 241 ctgtctgcga gtcgatcgca gttt 24
 243 <210> SEQ ID NO: 28
 244 <211> LENGTH: 8
 245 <212> TYPE: PRT
 246 <213> ORGANISM: Synthetic
 248 <220> FEATURE:
 249 <223> OTHER INFORMATION: At position 5, X = Selenocysteine
 251 <400> SEQUENCE: 28
 252 Ser Ala Arg Val Xaa His Gly Pro
 253 1 5
 256 <210> SEQ ID NO: 29
 257 <211> LENGTH: 98
 258 <212> TYPE: DNA
 259 <213> ORGANISM: Synthetic

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/937,187

DATE: 02/06/2002
TIME: 18:41:31

Input Set : A:\Neb-164.app
Output Set: N:\CRF3\02062002\I937187.raw

261 <400> SEQUENCE: 29
 262 catgttcgg ccgtaccgac cgattggtgc agacctgcaa ccgatgggcc gtgtcagaca 60
 263 cgagcgctag agtgagaata gaaaggtaacc cgggcattg 98
 265 <210> SEQ ID NO: 30
 266 <211> LENGTH: 25
 267 <212> TYPE: DNA
 268 <213> ORGANISM: Synthetic
 270 <400> SEQUENCE: 30
 271 catgcccggg tacctttcta ttctc 25
 273 <210> SEQ ID NO: 31
 274 <211> LENGTH: 20
 275 <212> TYPE: DNA
 276 <213> ORGANISM: Synthetic
 278 <400> SEQUENCE: 31
 279 ccctcatagt tagcgttaacg 20
 281 <210> SEQ ID NO: 32
 282 <211> LENGTH: 10
 283 <212> TYPE: PRT
 284 <213> ORGANISM: Synthetic
 286 <220> FEATURE:
 287 <223> OTHER INFORMATION: At position 5, X = Selenocysteine
 289 <400> SEQUENCE: 32
 WOK > 290 Ser Ala Arg Val Xaa His Gly Pro Ser Val
 291 1 5 10
 294 <210> SEQ ID NO: 33
 295 <211> LENGTH: 85
 296 <212> TYPE: DNA
 297 <213> ORGANISM: Synthetic
 299 <220> FEATURE:
 300 <223> OTHER INFORMATION: M = A or C
 302 <220> FEATURE:
 303 <223> OTHER INFORMATION: N = A, C, T or G
 305 <400> SEQUENCE: 33
 WOK > 306 catgttcgg ccgatggtg cagacctgca accgamnnmn nnmnntcamnn mnnmnnnnna 60
 307 gagtgagaat agaaaaggtaac ccggg 85
 309 <210> SEQ ID NO: 34
 310 <211> LENGTH: 85
 311 <212> TYPE: DNA
 312 <213> ORGANISM: Synthetic
 314 <220> FEATURE:
 315 <223> OTHER INFORMATION: M = A or C
 317 <220> FEATURE:
 318 <223> OTHER INFORMATION: N = A, C, T or G
 320 <400> SEQUENCE: 34
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 322 gagtgagaat agaaaaggtaac ccggg 85
 324 <210> SEQ ID NO: 35
 325 <211> LENGTH: 8
 326 <212> TYPE: PRT

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/937,187

DATE: 02/06/2002
TIME: 18:41:32

Input Set : A:\Neb-164.app
Output Set: N:\CRF3\02062002\I937187.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:33 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1
L:33 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:252 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:28
L:252 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:28
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:290 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:32
L:290 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:32
L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:306 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:33
L:306 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:33
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L:321 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:34
L:321 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:34
L:321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:383 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:40
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L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:397 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:41
L:397 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:41
L:397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41